

## Screening for Abdominal Aortic Aneurysm: Recommendations from the U.S. Preventive Services Task Force

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The full reports are titled "Screening for Abdominal Aortic Aneurysm: Recommendation Statement" and "Screening for Abdominal Aortic Aneurysm: A Best-Evidence Systematic Review for the U.S. Preventive Services Task Force." They are in the 1 February 2005 issue of *Annals of Internal Medicine* (volume 142, pages 198-202 and pages 203-211). The first report was written by the U.S. Preventive Services Task Force; the second report was written by C. Fleming, E.P. Whitlock, T.L. Beil, and F.A. Lederle.

### What is the U.S. Preventive Services Task Force?

The U.S. Preventive Services Task Force (USPSTF) is a group of health experts that reviews published research and makes recommendations about preventive health care.

### What is the problem and what is known about it so far?

The aorta, a large blood vessel that passes through the chest and abdomen, carries blood from the heart to the body. Abdominal aortic aneurysms (AAAs) are bulges in weakened sections of the aorta. They are most common in men older than age 65 years, people with high blood pressure, and smokers. Large aneurysms can burst or rupture, which often causes death. Thus, the general recommendation is for patients with AAAs larger than 5.5 centimeters to have surgery to fix the aorta. Most patients experience no symptoms from AAAs until rupture nears. Ultrasonography is the best test to look for AAA. Screening for AAA involves performing ultrasonography in people who have normal findings on physical examination and no symptoms. The goal of screening is to find AAAs and, if they are large enough, fix them before rupture. Surgery to fix AAAs is a major procedure and can have serious complications, including death. Screening for AAAs has not become regular practice because the benefits compared with the risks have been unclear.

### How did the USPSTF develop these recommendations?

The USPSTF reviewed published research from January 1994 to July 2004 to identify the benefits and harms of screening with ultrasonography for AAA.

### What did the authors find?

Four large studies randomly assigned participants to get AAA screening or not. Screened patients had lower rates of dying of a ruptured AAA than unscreened patients, but overall rates of death from all causes were similar in both groups. The authors found that AAA was much more common in men than in women and was most common in male smokers. Of all patients dying of AAA rupture, 95% are older than age 65 years. Future death from AAA rupture is rare after negative results on ultrasonography at age 65 years. Repair improved outcomes for patients with aneurysms larger than 5.5 centimeters. Screening can cause short-term anxiety, but the authors found no long-lasting psychological side effects from ultrasonography. However, complications occur in up to about 30% of patients who have AAA repair, and about 4% die before leaving the hospital after AAA repair.

### What does the USPSTF suggest that patients and doctors do?

Men who have ever smoked (current and former smokers) should get ultrasonography once between ages 65 to 75 years to look for AAA.

The USPSTF recommends neither for nor against AAA screening for men who have never smoked. If these men wish to consider AAA screening, they should talk with their doctors to decide whether the risks are worth the potential benefits.

Women should not undergo ultrasonographic screening for AAA.

Of course, ultrasonography to look for AAA is indicated in any patient with abnormal findings on medical examination or with symptoms that might be due to AAA.

### What are the cautions related to these recommendations?

Recommendations may change as new studies or safer procedures for AAA repair become available.

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